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RUEHCN/AMCONSUL CHENGDU 4509
RUEHGZ/AMCONSUL GUANGZHOU 1270
RUEHGH/AMCONSUL SHANGHAI 4500
RUEHSH/AMCONSUL SHENYANG 8994

S E C R E T SECTION 01 OF 02 STATE 009321

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E.O. 12958: DECL: 01/29/2035
TAGS: [PINR](#) [ENRG](#) [TRGY](#) [CH](#)
SUBJECT: (U) CHINA: POWER PLANTS AND ELECTRICITY GRID
(C-TN9-01374)

REF: A. BEIJING 002053
[1](#)B. BEIJING 002124

Classified By: ELISSA G. PITTERLE, DIRECTOR, INR/OPS

[1](#)1. (S/NF) WASHINGTON ANALYSTS CONTINUE TO MONITOR CHINA'S GROWING DEMAND FOR ENERGY AND ITS IMPLICATIONS ON THE ENVIRONMENT AND U.S. ENERGY SECURITY, AS CHINA CONTINUES TO DEVELOP ELECTRICITY GENERATING CAPACITY DESPITE SLOW ECONOMIC GROWTH. TO PROVIDE SENIOR POLICYMAKERS WITH A BETTER UNDERSTANDING OF CHINA'S CURRENT AND FUTURE CAPACITY, WE ARE INTERESTED IN THE STATUS OF THE DEVELOPMENT OF CHINA'S ELECTRICITY GENERATING CAPACITY AND ELECTRIC GRID, SPECIFICALLY, THE STATUS OF THE ULTRA HIGH VOLTAGE TRANSMISSION GRID SYSTEM AND THE "SMART GRID." WE ARE ALSO INTERESTED IN CHINESE LEADERSHIP VIEWS ON WHAT PROGRESS HAS BEEN MADE ON CHINA'S ANNOUNCED PLANS TO DEVELOP AN INTERCONNECTED NATIONAL GRID SYSTEM TO ENHANCE THE ABILITY TO TRANSFER OR "WHEEL" POWER ACROSS THE COUNTRY, AND INTERCONNECTIONS WITH NEIGHBORING COUNTRIES.

[1](#)2. (U) AS TIME AND RESOURCES PERMIT, ANY INFORMATION POST CAN PROVIDE ON THE QUESTIONS BELOW WOULD BE GREATLY APPRECIATED. MANY THANKS.

[1](#)A. (U) POWER PLANT DEVELOPMENT

1) (S/NF) ARE CHINESE LEADERS SHOWING SIGNS THAT THE PACE OF COAL-FIRED THERMAL POWER PLANT (TPP) CONSTRUCTION IS (OR WILL BE) SLOWING DOWN? CONSIDERING 2009 PRESS REPORTS OF CASH FLOW SQUEEZES CAUSED BY RISING COAL PRICES, ARE CHINESE EQUIPMENT MANUFACTURERS CONCERNED ABOUT GETTING PAID FOR THEIR EQUIPMENT? ARE THERE ANY INDICATIONS THAT BEIJING WILL INCREASE RESIDENTIAL PRICES FOR ELECTRICITY TO REFLECT INCREASING INTERNATIONAL PRICES FOR ENERGY RESOURCES?

2) (S/NF) AS PRICES DROP AND NATURAL AVAILABILITY INCREASES, ARE NATIONAL OR LOCAL POLICIES REGARDING NATURAL GAS-FIRED PLANTS CHANGING? ARE THERE ANY ADDITIONAL NATURAL GAS PLANT AND/OR PIPELINE INVESTMENTS PLANNED?

3) (S/NF) CONTINUED DEMAND FOR COAL TO FUEL TTPS WILL IMPACT CHINA'S RAIL INFRASTRUCTURE. ARE THERE NATIONAL OR LOCAL PLANS TO INVEST IN INFRASTRUCTURE THAT HANDLES THE TRANSPORTATION OF COAL?

4) (S/NF) ARE THERE ANY CHANGES IN THE SIZE OR EFFICIENCY SPECIFICATIONS OF BOILERS ORDERED FOR CHINESE TTPS? REPORTING INDICATES THAT COSTS ARE MUCH LOWER IN CHINA FOR THE USUAL PULVERIZED COAL TPP, BUT WHAT ARE THE COSTS FOR SUPERCRITICAL (HIGHER TEMP AND HIGHER PRESSURE) BOILERS?

5) (S/NF) CHINESE PRESS REPORTS CLAIM SMALL TTPS ARE BEING SHUT DOWN; SOME WESTERN EXPERTS SAY AT LEAST SOME OF THE PLANTS ARE DEMOLISHED TO KEEP THEM OFF LINE. WHAT ARE THE OFFICIAL OR PRIVATE REASONS FOR THESE CLOSURES OR DEMOLITION?

ARE THE CLOSURES IN PLACES WHERE NEW, LARGER PLANTS ARE RUNNING? DO CHINESE INSTALLED CAPACITY STATISTICS REFLECT NET OR GROSS CAPACITY CHANGES?

6) (S/NF) WHAT VIEWS DO CHINESE POWER SECTOR SUPPLIERS HOLD ABOUT CHINA'S ELECTRICITY SUPPLY/DEMAND BALANCE? DID SHORTAGES REPORTED IN THE PRESS SUMMER 2007 REFLECT GENERATING CAPACITY, FUEL SUPPLY/SECTOR ECONOMICS, GRID LIMITATIONS, OR SOME COMBINATION? ARE CENTRAL GOVERNMENT PLANS FOR ADDING GENERATING CAPACITY AND UPGRADING THE COUNTRY'S GRID REALISTIC? WHAT ARE THE MOST IMPORTANT FACTORS THAT COULD AFFECT WHETHER CHINA WILL MEET ITS TARGETS?

7) (S/NF) PREVIOUS INFORMATION INDICATES THAT IT TAKES ABOUT THREE YEARS FROM WHEN BOILERS ARE ORDERED UNTIL THEY ARE INSTALLED. IS THIS STILL THE CASE?

8) (S/NF) CHINA PLANS TO INCREASE NUCLEAR POWER CAPACITY TO 40 GW BY 2020 WITH SOME FORECASTS AS HIGH AS 86 GW. SOME ENERGY EXPERTS BELIEVE THAT THIS IS AN UNREALISTIC GOAL BASED ON INCREASED INDUSTRY LEAD TIMES AND INCREASED COSTS FOR CONSTRUCTION AND MATERIALS. DO NUCLEAR INDUSTRY MEMBERS IN CHINA BELIEVE THIS GOAL IS REALIZABLE? IS THERE CONCERN REGARDING THE AVAILABILITY OF URANIUM?

9) (S/NF) AS NATURAL PRICES DROP AND AVAILABILITY INCREASES, ARE THERE ANY NATIONAL OR LOCAL PLANS TO REPLACE

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COAL TPPS WITH GAS TPPS? IF GAS TPPS ARE BEING BUILT, ARE THEY FOR BASELOAD OR PEAK?

1B. (U) ELECTRICITY GRID DEVELOPMENT

1) (S/NF) WHAT NATIONAL GUIDELINES ARE THERE INSTRUCTING PROVINCES AND CITIES TO CONSTRUCT POWER PLANTS IN SPECIFIC AREAS? IS THERE A GOVERNMENTAL EFFORT TO MOVE TO PLANTS AWAY FROM THE POPULATION CENTERS, AND IF SO IS THERE A TRANSMISSION OR GRID ISSUE?

2) (S/NF) HOW DO CHINA'S GOVERNMENT OFFICIALS, POWER ENGINEERS, AND INDUSTRY INSIDERS PERCEIVE THE CURRENT GRID SYSTEM? IS THERE IN FACT A NATIONAL GRID NETWORK, AND ARE THE INTERCONNECTIONS FUNCTIONING? WHAT ARE THE MOST CRITICAL AND ECONOMICAL CAPACITY LIMITATIONS? DO THEIR VIEWS DIFFER FROM HOW WESTERN POWER ENGINEERS ASSESS CHINA'S ELECTRICITY GRID?

3) (S/NF) WHAT ARE OFFICIALS' ESTIMATES REGARDING THE COST, FUTURE PLANS, AND THE EFFICIENCY OF THE ULTRA HIGH VOLTAGE TRANSMISSION LINES? ARE THERE ANY NATIONAL OR LOCAL PLANS TO UPGRADE TO MORE EFFICIENT GRIDS?

4) (S/NF) WHAT ARE GOVERNMENT OFFICIALS AND ENERGY INSIDERS VIEWS ON WHERE THE LARGEST UPCOMING POPULATION CENTERS WILL BE, AND DOES CHINA HAVE OR PLANS TO BUILD SUFFICIENT ELECTRIC CAPACITY IN THESE AREAS?

5) (S/NF) CHINA RECENTLY MANDATED THAT ITS 11 LARGEST CITIES HAVE ALL ELECTRIC BUSES BY 2013 AND SUBSIDIZED THE MANUFACTURERS OF TAXIS SO THEY SOON BECOME ALL ELECTRIC AS WELL. CHINA IS ALSO INVESTING TO CREATE CHARGE STATIONS INFRASTRUCTURE (RECHARGING AND SWAPPING BATTERIES) FOR THESE FUTURE TAXI FLEETS. WHAT IS THE LIKELY DEMAND GROWTH IN ELECTRICITY FROM THE ELECTRIC VEHICLES SECTOR AND HOW DOES CHINA INTEND TO SUPPLY IT?

13. (U) PLEASE CITE C-TN9-01374 IN THE SUBJECT LINE OF REPORTING IN RESPONSE TO THE ABOVE QUESTIONS.
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